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What you should know about -----

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HOG CHOLERA

Agricultural Resesearch Service
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What you should know about-----

HOG CHOLERA

WHAT HOG CHOLERA IS. . .

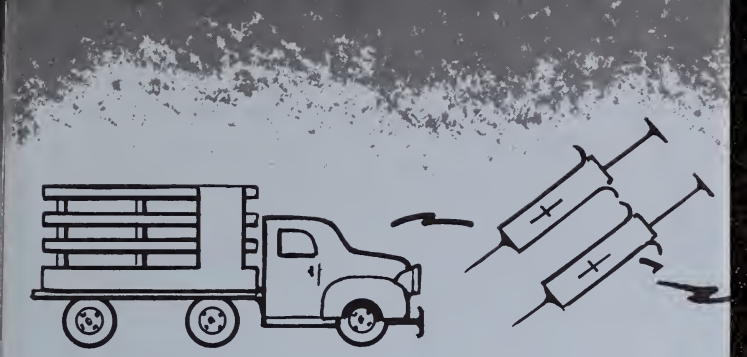
Hog cholera is an infectious, contagious disease that affects only swine. The disease, which is caused by a virus, is nearly always fatal, since less than 5 percent of the swine that become infected survive. It is estimated that hog cholera costs the swine industry about $40 million annually, or approximately 65 cents for each pig marketed. In addition, a number of foreign countries that are cholera-free restrict or prohibit importation of pork from the United States.

WHERE HOG CHOLERA IS FOUND. . .

The first recognized outbreak of hog cholera in the United States occurred in Ohio, in 1833. By 1887 it had spread to 35 States. The disease is now prevalent throughout the United States, and is found in all foreign countries producing swine with the exception of those where effective eradication programs have been undertaken.

WHAT CAUSES HOG CHOLERA. . .

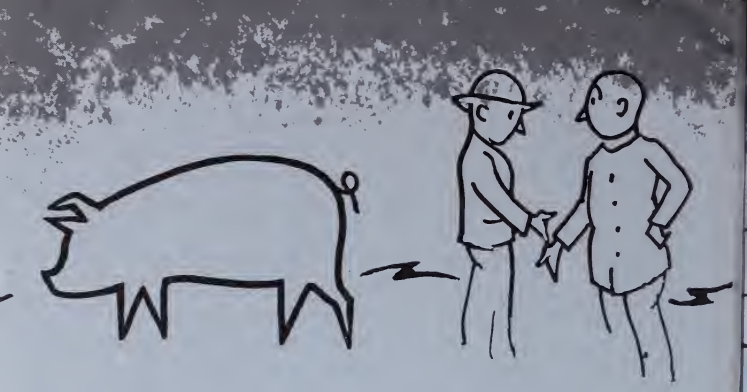
Hog cholera may be caused by any of a number of strains of cholera virus. While these strains may vary in virulence from time to time, tests have shown they can be kept active for at least 7 years when placed in a preservative. The virus will survive in pork products for months, and will live for at least 6 months in pickled, salted, and smoked meats. The ability of the virus to exist outside its host depends upon the temperature. Freezing tends to preserve the virus while heat tends to kill it. In experimentally contaminated manure water, it lived from 2 days to 7 weeks.



HOW HOG CHOLERA IS SPREAD. . .

Hog cholera may be spread by:

- Adding newly purchased, diseased pigs to a susceptible herd.
- Moving unvaccinated or improperly vaccinated pigs through public markets and then to farms as feeder pigs.
- Marketing apparently healthy pigs from a herd where cholera exists.
- Transporting pigs in contaminated vehicles or housing pigs in contaminated premises.
- Improper disposal of dead animals. Dogs, crows, and other animals or birds may feed on infected carcasses and spread the disease.
- Feeding uncooked or improperly cooked garbage. Such garbage may contain raw pork--and even some forms of cured or pickled pork--that harbors the cholera virus.
- Permitting hogs to eat or drink contaminated food or water.
- Virus entering the animal's body through wounds or abrasions of the skin.
- Contact with infected urine, manure, and secretions of the nose and eyes.
- Stock buyers, salesmen, and others who may carry the disease on clothing, equipment, or vehicles from an infected to a healthy herd.



HOW TO TELL IF SWINE ARE INFECTED. . .

Hog cholera is a blood infection. When the virus enters the pig's body, it passes to the bloodstream and develops there. The blood becomes infectious within 24 hours after the virus enters the animal's body. The urine and manure usually contain the virus within 48 hours. Secretions of the eyes and nose become infectious by the third day.

Pigs seldom show visible symptoms before the fourth day and may fail to show symptoms for as long as 7 days. Maximum growth of virus is usually reached in 6 to 8 days. Death from cholera may not occur for 10 days or more following infection. However, infected animals can transmit the disease before any symptoms appear.

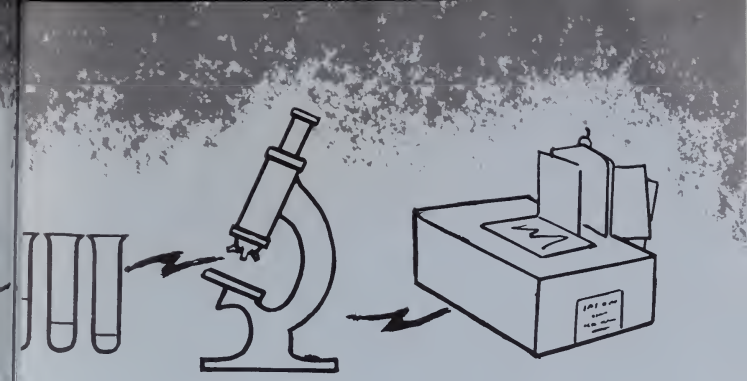
Many hog cholera symptoms resemble those common to other diseases. Symptoms may also vary in different hogs and different herds. The only sure way to diagnose the disease is through laboratory tests. However, cholera may be suspected if your hogs show any of the following signs:

- Fever--often 105° F., or higher. Temperature usually stays above normal for several days, then gradually drops, often becoming subnormal.

- Loss of appetite. Pigs may appear depressed and become inactive.

- Pig's legs may be half bent, he may stagger or sway and eventually collapse in any position. Sick pigs may tend to pile on one another.

- Fits or convulsions may occur. This is not a common symptom, but does occur in some cases.



- Skin may have a reddish or purplish tinge.
- Pigs may be constipated in early stages of infection. Later, manure may be yellowish gray and resemble diarrhea after animal has been sick a day or more. Diarrhea often gets progressively worse.
- Vomiting may occur.
- Eyes may have a watery discharge during early stages of the disease. Later this discharge becomes thicker and gums the eyelids together.

HOW TO PREVENT HOG CHOLERA. . .

- Make sure all replacement animals added to the herd have been properly vaccinated.
- Isolate replacement animals from the main herd for 10 to 30 days.
- Avoid contact with infected herds; discourage visitors from entering areas where swine are kept.
- Avoid feeding raw garbage to hogs; don't buy replacement animals from garbage-fed herds.
- Vaccinate all healthy animals in the herd. When vaccinating, keep in mind that the degree of immunity may vary from one animal to another, since no vaccine provides complete immunity. The following immunizing agents may be used to help prevent hog cholera:

A. ANTI-HOG-CHOLERA SERUM

Hog-cholera serum, made from the blood of hogs that have been highly immunized against the disease, provides immediate immunity to nonexposed hogs. This immunity lasts 2 to 3 weeks or more, depending on the pig and the amount of serum used. Since its effect is temporary, it is normally used to provide only emergency protection to susceptible pregnant sows or pigs afflicted with some disease other than cholera that has caused animals to become too weak to tolerate full vaccination. Use of too much serum may block action of other vaccines, thus preventing development of immunity.

B. VIRULENT VIRUS WITH ANTI-HOG-CHOLERA SERUM

Injecting virulent virus and anti-hog-cholera serum simultaneously was the only method of vaccinating pigs against hog cholera for many years. The serum instantly protects the pig against the live virus until active resistance to the virus builds up in the pig's body.

Pigs vaccinated using this method may shed virulent virus and infect other pigs and the premises they occupy. For this reason, a majority of States have restricted the use of serum and virulent virus vaccine.

C. MODIFIED LIVE VIRUS VACCINE

Modified live virus vaccine induces immunity with little danger of spreading fully virulent virus. This vaccine produces immunity within 4 to 7 days. This immunity may last as long as 3 years, although yearly vaccination of breeding stock is recommended.

Pregnant sows should not be vaccinated with these vaccines. They should be vaccinated prior to being bred.

When anti-hog-cholera serum is used with modified live-virus vaccine, pigs receive immediate temporary protection from serum until the vaccine induces more permanent resistance in the pig's body.

D. KILLED VIRUS VACCINE

Killed virus vaccine is made from live virus that has been inactivated by chemical treatment. This vaccine must not be used with anti-hog-cholera serum.

Killed virus vaccine produces an immunity lasting several months. However, immunity doesn't become established for about 3 weeks after vaccination. To obtain maximum immunity, pigs must be fully susceptible. Since immune sows pass along some resistance to their suckling pigs, such pigs should not be vaccinated with this vaccine until at least 2 weeks after weaning. Breeding stock should be re-vaccinated annually.

Killed virus vaccine can be safely used on pregnant sows and unthrifty pigs, if vaccination is necessary. However, it should never be used on pigs that have been exposed to hog cholera.

Both anti-hog-cholera serum and the various hog-cholera vaccines are subject to certain limitations. For example, pigs afflicted with anemia may in some cases develop shock following the use of anti-hog-cholera serum.

In rare cases, some normal pigs in a herd may be particularly susceptible to hog cholera. Vaccination except with killed virus vaccine may cause these animals to develop the disease even though the same vaccine immunizes other pigs.

Infectious diseases, such as swine influenza, bacterial pneumonia, swine dysentery, malignant edema, swine pox, erysipelas, enteritis, rhinitis, and other diseases may reduce a pig's ability to develop immunity.

Pigs may also fail to develop immunity when resistance is lowered by parasites, deficient or unbalanced rations, unsanitary conditions, or when exposed to unfavorable weather or other stress.

Pigs treated with anti-hog-cholera serum alone, and vaccinated later with modified live virus and serum before the protective antibodies of the first serum treatment disappear, may not be immunized.

TREATMENT FOR HOG CHOLERA. . .

No effective cure for hog cholera has been developed. When large doses of anti-hog-cholera serum are given exposed, unvaccinated pigs in very early stages of the disease, or before symptoms appear, some animals may be saved.

Antibiotics are sometimes given infected animals. These may control secondary infections and prolong the pig's life, but will not cure hog cholera.

WHAT TO DO WHEN YOU SUSPECT HOG CHOLERA. . .

- Isolate sick animals immediately.
- Notify your local, State or Federal veterinarian promptly so that he can examine the swine herd and arrange for all necessary laboratory tests.
- If the disease is found, ask your veterinarian to help you set up a plan to keep infection from spreading to healthy animals in your herd--or to other herds in the community.

Growth Through Agricultural Progress

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